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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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10/605,018

09/02/2003

Allen Sykes

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04/04/2005

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EXAMINER

SHAW, CLIFFORD C

ART UNIT

PAPER NUMBER

1725

DATE MAILED: 04/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/605,018

Applicant(s)

SYKES ET AL.

Examiner

Clifford C. Shaw

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

Detailed Action

1.) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2.) Claims 1, 3-6, and 23-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Manz (3,544,759) taken with the SCR Manual excerpt. The patent to Manz (3,544,759) discloses a welding power source that includes features claimed, including: an output mode selector labeled "operators switch control"; and a selector circuit associated with elements 2, 4, 6, and 8 to energize a pair of output terminals at elements 24 and 44 with different volt-amp characteristics. The claims differ from Manz (3,544,759) in calling for: the selector circuit to "electronically energize" the output terminals and more specifically the use of SCRs for this function (the selector circuit in Manz (3,544,759) energizes the outputs through the agency of electro-mechanical relays); the use of AC power of any number of phases; and the provision for a "kit" in claims 23-24. These differences do not patentably distinguish over the prior art. At the time applicant's invention was made, it would have been obvious to have used any well known switching technology in Manz (3,544,759) in lieu of the relays explicitly shown. In particular, it would have been obvious to have used an SCR based switching approach, the motivation being the teachings of the SCR Manual excerpt that it is advantageous to use SCR based switching circuits instead of electro-mechanical switches (see the "introduction" on page 143 of the SCR Manual excerpt), thereby satisfying the claim language calling for electronically energizing an

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output terminal or using SCRs for this purpose. In regard to the claimed multiple phases, it would have been obvious to have used any well known source of A.C. in Manz (3,544,759), including poly-phase A.C., based on routine design considerations such as availability of a particular source, ripple constraints, etc. In regard to the “kit” limitations in claims 23-25, it is considered obvious that the particular circuit modules of the combination would be in discreet units before their construction into an operational power supply, simply because this is the way technological artifacts are made – large systems are built from smaller parts. This existence of the parts in a discreet mode would constitute a “kit”, thereby satisfying the claim limitations.

3.) Claims 2 and 7-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Manz (3,544,759) taken with the SCR Manual excerpt as applied to claims 1, 3-6, and 23-25 above, and further in view of Yasuhara et al. (6,037,566). The only aspects of the claims to which the rejection above does not apply are: the provisions for constant current and constant voltage outputs as in claim 3; the provision for a common negative terminal as in claim 7; and the limitations directed to filters and inductors as for example in claim 8. These differences do not patentably distinguish over the prior art. At the time applicant's invention was made, it would have been obvious to have adjusted to output modes in Manz (3,544,759) for constant current and constant voltage, the motivation being the teachings of Yasuhara et al. (6,037,566) that it is advantageous for a multiple output power supply to provide these modes (see the abstract of Yasuhara et al. (6,037,566)). In regard to the common negative terminal and the various limitations directed to filters and inductors, it would have been obvious to have provided the system of Manz (3,544,759) with these features in view of the teachings of Yasuhara et al.

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(6,037,566) that such are advantageous in a multi-mode power supply (see the common negative terminal 10 in figure 1, see the inductors/filters at elements 3, 4, 7 in figure 1 and at elements 13 and 14 in figure 2 of Yasuhara et al. (6,037,566))

4.) The patents to Welch (2,597,689), Colley (4,517,439), Thommes (4,918,285), and Yasuhara et al. (6,028,290) are cited to show prior art arc welding power supplies that have multiple user selected output modes.

Any inquiry concerning this communication should be directed to Clifford C Shaw at telephone number 571-272-1182. The examiner can normally be reached on Monday through Friday of the first week of the pay period and on Tuesday through Friday of the second week of the pay period.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Thomas G. Dunn, can be reached at 571-272-1171. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications

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may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Clifford C Shaw
Primary Examiner
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April 1, 2005